

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A circuit for a lamp, comprising:
a first sub-circuit for connecting to mains voltage of a predetermined frequency for rectifying the mains voltage;
a second sub-circuit connected to the first sub-circuit for providing an alternating current required for the lamp; and
a control circuit which is connected to the first and the second sub-circuit and which controls the frequency of the alternating current subject to a varying component of the mains voltage rectified by the first sub-circuit;
wherein the frequency of the alternating current provided by the second sub-circuit is synchronized with the varying component.
2. (Currently Amended) ~~The circuit of claim 1A~~ circuit for a

lamp, comprising:

a first sub-circuit for connecting to mains voltage of a
predetermined frequency for rectifying the mains voltage;

a second sub-circuit connected to the first sub-circuit for
providing an alternating current required for the lamp; and

a control circuit which is connected to the first and the
second sub-circuit and which controls the frequency of the
alternating current subject to a varying component of the mains
voltage rectified by the first sub-circuit,

wherein the first sub-circuit comprises a filter with one or
more coils and capacitors, a rectifier circuit, an ~~(electronic)~~ a
switch and a buffer capacitor that is coupled to its output
terminals.

3. (Previously Presented) The circuit of claim 1, wherein the
second sub-circuit comprises a converter circuit for stabilizing
direct current and a switching device for providing a square-wave
current of a desired level.

4. (Currently Amended) The circuit of claim 1, wherein the

control circuit is connected on one side to a switch in the first sub-circuit and on the other side to one or more switches in a switching device, so that the phase and/or frequency of the lamp current controlled by the switching device is controlled subject to a variation of the predetermined frequency the varying component of the mains voltage or a multiple thereof.

Claim 5 (Canceled)

6. (Currently Amended) The circuit of claim 1A circuit for a lamp, comprising:

a first sub-circuit for connecting to mains voltage of a predetermined frequency for rectifying the mains voltage;

a second sub-circuit connected to the first sub-circuit for providing an alternating current required for the lamp; and

a control circuit which is connected to the first and the second sub-circuit and which controls the frequency of the alternating current subject to a varying component of the mains voltage rectified by the first sub-circuit,

wherein the control circuit controls the phase of the

alternating current provided by the second sub-circuit such that this is the same as the phase of the varying component of the rectified mains voltage supplied by the first sub-circuit.

7. (Previously Presented) The circuit of claim 1, wherein the second sub-circuit comprises an igniter for generating voltage pulses across the lamp so as to ignite the lamp.

8. (Previously Presented) The circuit of claim 1, wherein the rectified mains voltage is in the order of magnitude of 400 V and the voltage across the lamp is in the order of magnitude of 100 V to 150 V.

9. (Previously Presented) The circuit of claim 1, wherein the varying component of the rectified mains voltage has a peak-to-peak value in the order of magnitude of 10-100 V.

10. (Currently Amended) A method for operating a lamp, comprising the acts of:

rectifying a supplied mains voltage and bringing it to a

desired voltage level; and

generating an alternating current;

wherein the frequency of the alternating current is controlled
subject to a varying component of the rectified mains voltage, and
wherein the frequency of the alternating current is synchronized
with the varying component.

11. (Currently Amended) ~~The method of claim 10A~~ method for
operating a lamp, comprising the acts of:

rectifying a supplied mains voltage and bringing it to a
desired voltage level; and

generating an alternating current;

wherein the frequency of the alternating current is controlled
subject to a varying component of the rectified mains voltage, and
wherein the phase of the alternating current is equal to the phase
of the varying component of the rectified mains voltage.

12. (Previously Presented) The circuit of claim 3, wherein the
desired level is +/-0.8 A for normal operation of the lamp.